# STATEMENT OF BASIS

Baton Rouge Chemical Plant
Halobutyl Production Facility
ExxonMobil Chemical Company
Baton Rouge, East Baton Rouge Parish, Louisiana
Agency Interest Number: 286
Activity Number: PER20090002
Proposed Permit 2166-V2

### I. APPLICANT:

## Company:

ExxonMobil Chemical Company P.O. Box 241, Baton Rouge, LA 70821

### Facility:

Baton Rouge Chemical Plant 4999 Scenic Highway, Baton Rouge, East Baton Rouge Parish, Louisiana 70805 Approximate UTM coordinates are 675.70 kilometers East and 3374.85 kilometers North, Zone 15

### II. FACILITY AND CURRENT PERMIT STATUS:

The ExxonMobil Baton Rouge Complex was established in 1909. Manufacturing operations have been ongoing continuously at the site since that time. The ExxonMobil Chemical Company Baton Rouge Chemical Plant (BRCP) was founded in 1940 and played an important role in producing synthetic rubber for the military during World War II. It is now one of four ExxonMobil chemical manufacturing facilities in the Baton Rouge area. The Plant also has several manufacturing units that are located within the adjacent Refinery.

The site manufactures a variety of first generation petrochemical products used by others to produce a variety of consumer products. Feeds come primarily from the adjacent ExxonMobil Refinery, although feedstocks are also purchased from outside suppliers and delivered by tanker or barge.

The facility received all its Part 70 permits for the entire facility. The following table lists all of the other units at BRCP and their permitted status:

Unit	Permit No.	Date Issued	Permitting Status
Aromatics	2299-V5	7/18/2008	Received Title V
AWT	3006-V0	6/6/2006	Received Title V
<b>AWT Thermal Combustor</b>	1977-V0	10/19/2003	Received Title V
BRTG	2012-V2	4/30/2009	Received Title V
Coproducts	2367-V1	5/1/2009	Received Title V
E-1000	2156-V1	12/9/2008	Received Title V
E-5000	1911-V1	12/12/2006	Received Title V

Unit	Permit No.	Date Issued	Permitting Status
HCD	2314-V0	2/22/2006	Received Title V
IPA	1924-V3	10/11/2006	Received Title V
Maintrain	2031-V7	12/1/2008	Received Title V
MEK/SBA	2281-V2	7/28/2009	Received Title V
Neo Acids	2379-V0	1/31/2008	Received Title V
NOVA Units	2123 -V0	6/6/2006	Received Title V
OXO Alcohol	2365-V3	9/1/2009	Received Title V
OXO Tankfield	2393-V1	12/27/2007	Received Title V
PALA	1200-V2	7/16/2004	Received Title V
Plant Infrastructure	2390-V1	7/20/2007	Received Title V
Plasticizer	2320-V0	12/20/2005	Received Title V
POX	2210-V0	4/4/2005	Received Title V
RGR	2361-V1	8/15/2006	Received Title V
VISTALON	2376-V1	8/13/2008	Received Title V
#5 LE/Poly	2396-V0	1/31/2008	Received Title V

### III. PROPOSED PERMIT / PROJECT INFORMATION:

## **Proposed Permit**

A permit application dated January 16, 2009, was submitted requesting a renewal of the Part 70 operating permit for the Halobutyl Production Facility..

A notice requesting public comment on the proposed permit was published in The Advocate, Baton Rouge, Louisiana, on [Insert Date]. The proposed permit was also sent to US EPA Region VI.

The Halobutyl Production Facility currently operates under Permit No. 2166 - V1, issued on issued on July 16, 2004 with Administrative amendments issued on August 4, 2006, March 8, 2007, and September 9, 2009.

# Project Description

There is no project associated with this renewal. Updated information is being incorporated into this renewal including:

- Leg landing losses from floating roof tanks has been included as a GC XVII Work Activity.
- GFLA 2/5/6 Cooling Tower (C-08) is used by the following units:
  - o C-08A Halobutyl
  - o C-08B Vistalon

- o C-08C Maintrain
- o C-08D Plant Infrastructure
- o C-08E Vistalon
- o C-08F Neo Acids
- o C-08G BRTG
- o C-08H AWT Thermal Combustor
- o C-08J Coproducts

Since the Halobutyl Unit (C-08A) is the major user of the C-08 all of the emissions (C-08A, C-08B, C-08C, C-08D, C-08E, C-08F, C-08G, C-08H, and C-08J) are being rolled into C-08. Emission Point Nos. C-08A, C-08B, C-08C, C-08D, C-08E, C-08F, C-08G, C-08H, and C-08J will be removed from the respect permits on the next permit modification or renewal.

 The permitted emissions for all sources have been evaluated and reconciled where necessary based on updated emission factors, calculation methodology, and emission speciation.

# Permitted Air Emissions

Estimated emissions from halobutyl Production Facility in tons per year are as follows:

Pollutant	Permitted	Proposed	Change
$PM_{10}$	20.32	26.68	+6.36
SO <sub>2</sub>	0.28	0.28	-
$NO_X$	330.99	331.03	+0.04
co	353.57	353.58	+0.01
VOC	375.60	380.70	+5.10

LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Permitted	Proposed	Change
Acetonitrile	_	0.36	+0.36
Bromoform	1.17	1.11	-0.06
Dichloromethane	0.20	0.06	-0.14
Methyl chloride	53.34	51.74	-1.60
Tetrachloroethylene	0.28	0.10	-0.18
Trichloroethylene	0.22	0.04	-0.18
n-Hexane	173.29	173.75	+0.46
Total VOC TAPs	228.50	227.16	-1.34
Other VOC	147.10	153.54	+6.44

Non-VOC TAPs:			
Ammonia	0.10	0.10	-
Chlorine	0.10	0.10	-

0.45

0.45

# Prevention of Significant Deterioration Applicability

There will be no projects in which emissions of CO, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>S change. Therefore, a PSD analysis is not required.

# Non-Attainment New Source Review (NNSR)

BRCP is located in a marginal non-attainment area under the 8-hour ozone standard. For existing major sources (VOC or  $NO_x$  greater than 50 TPY), the marginal classification has a 25 tons per year threshold value for a major modification, and a 25 tons per year trigger for consideration of the new emissions increases of  $NO_x$  and/or VOCs.

There are no emissions increases as a result of this renewal. The only changes to emissions result from changes in emission factors and are not changes in actual emissions.

## Type of Review

Hydrochloric acid

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, Louisiana Comprehensive Toxic Air Pollutant Emission Control Program, NSPS and NESHAP. PSD does not apply.

### Streamlined Equipment Leak Monitoring Program

It is required that the HALOBUTYL PRODUCTION FACILITY complies with a streamlined equipment leak-monitoring program. Compliance with the streamlined program shall serve to comply with each of the fugitive emission monitoring programs being streamlined, as indicated in the following table:

Unit or Plant	Program Being Streamlined	Stream	Overall Most Stringent
Site		Applicability	Program
U-46C	40 CFR 63 Subpart H-HON	5% VOHAP	40 CFR 63 Subpart H-
U-92	LA Non-HON MACT	5% VOTAP	HON
U-95	LAC 33:111.2122	10% VOC	
U-69			

## **MACT** requirements

These regulations define maximum achievable control technology (MACT) standards for stationary source categories of hazardous air pollutants (HAPs). These HAPs were listed in the Clean Air Act Amendments of 1990.

BRCP is a plant site that is a major source of HAPs. As the Halobutyl Production Facility is an existing elastomers product process unit, BRCP meets MACT requirement by comply with the NESHAP for Group 1 Polymers and Resins.

## Air Quality Analysis

Air quality analysis is not conducted.

# **General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to draft permit AIR PERMIT BRIEFING SHEET, VIII.

# **Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to draft permit AIR PERMIT BRIEFING SHEET, IX.

### Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements of the proposed Part 70 permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Specific Requirements of the proposed Part 70 permit.

# IV. PERMIT SHIELDS

No permit shield will be granted with the proposed permits.

### V. PERIODIC MONITORING

No periodic monitoring is required.

# VI. Glossary

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

National Emission Standards for Hazardous Air Pollutants (NESHAPs) - The NESHAPs were originally required by the 1970 Clean Air Act (CAA). These standards were developed for sources and source categories that were determined to pose adverse risk to human health by the emission of hazardous air pollutants (HAPs). The standards are set "at the level which ... provides an ample margin of safety to protect the public health from such hazardous air pollutant." These risk-based NESHAPs are located in 40 CFR 61. The NESHAPs program applies to all existing and new/modified sources. Congress directed EPA to develop a program to develop further the regulation of HAPs in Section 112 of the 1990 Clean Air Act Amendments (CAAA). While the standards for major sources of HAPs developed per this section are also designated as NESHAPs, they are established according to Maximum Achievable Control Technology (MACT). These technology-based NESHAPs are located at 40 CFR 63.

Nitrogen Oxides  $(NO_x)$  - Compounds whose molecules consist of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub>- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO2) – An oxide of sulphur.

Title V permit - See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.